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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,242

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EXAMINER

AMIRI, NAHID

ART UNIT

PAPER NUMBER

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MAIL DATE

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01/07/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/813,242	Applicant(s) SELLERS ET AL.	
	Examiner NAHID AMIRI	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

In view of Applicant's Amendment received 13 November 2007, amendments to the claims have been entered. Claims 2 and 9 are canceled. Claims 1, 3-8, and 10-12 are pending.

Claim 12 stands withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 13 December 2005.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,042,293 Maughan in view of US Patent No. 5,112,153 Gunn et al. and US Patent No., 2,635,906 Graham et al.

With respect to claims 1, 3 and 4, Maughan discloses a joint assembly (20, Figs. 1, 4) including a metal housing (30) having a side wall (34) which defines a central bore having a closed end via a washer (88) and an open end, the metal housing having an axial lubrication port (90) in the closed end (88) of the central bore; a metal lower bearing (24, shown with a metal cross-hatching) disposed within the central bore adjacent the closed end, the metal lower bearing (24) including a lubrication slot (60) disposed on an inner bearing surface, the lubrication slot (60) being generally axially aligned with the central lubrication port (90) in the metal housing (30) to provide a common lubrication passageway; a metal moveable member (52) having a head end portion (50) disposed in the central bore and a shank portion (54) extending from the head end portion (50), the head end portion (50) engaging the central bore of the metal housing (30),

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the shank portion (54) being at least partially disposed outside of the central bore; an annular metal upper bearing (26) disposed about the movable member (52) within the central bore, the annular metal upper bearing (26) having an inner surface engaging the head end portion (50) in direct metal-to-metal sliding contact, and outer surface directly engaging the side wall (34), and wherein the annular metal upper bearing (26) is configured to engage the side wall (34) and the head end portion (50) simultaneously.

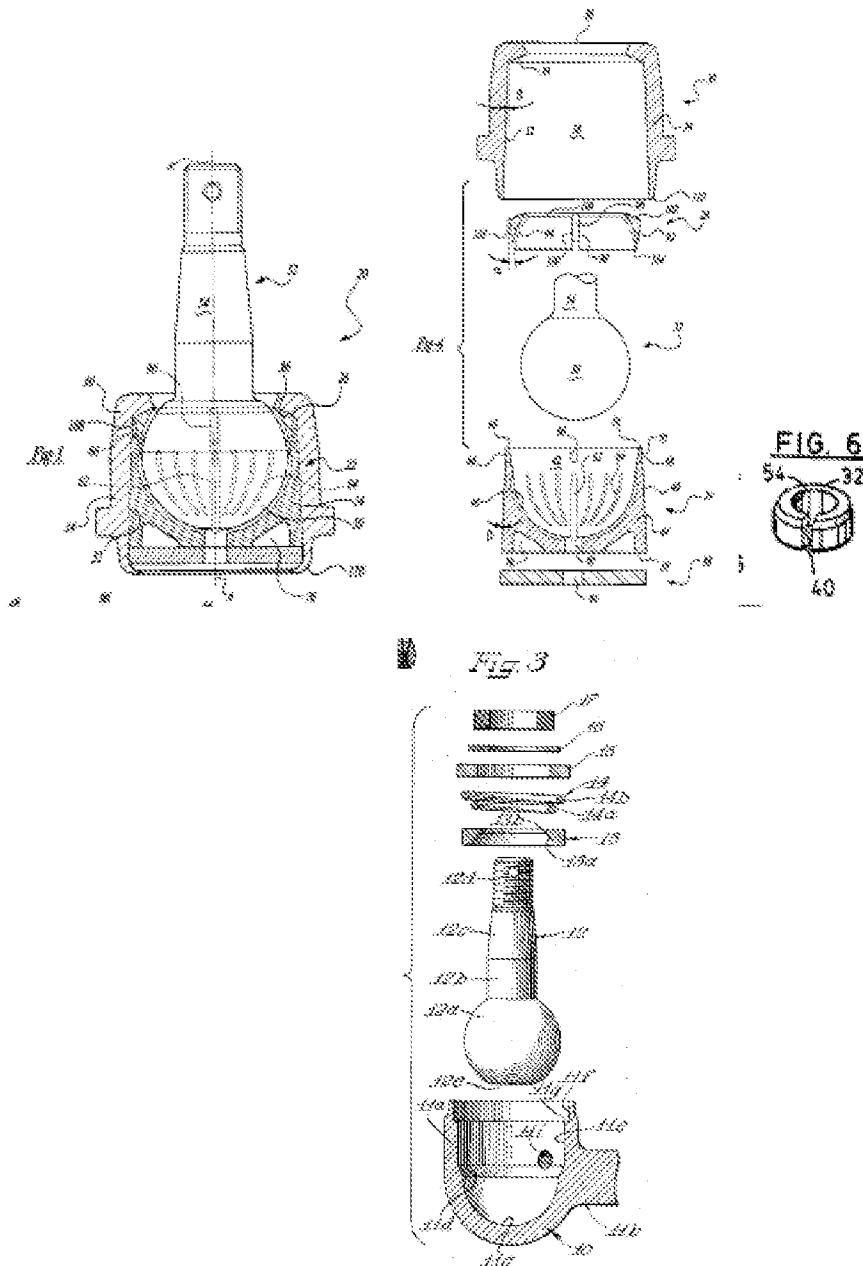
Maughan fails to disclose that the metal upper bearing having a split segment extending from the inner surface to the outer surface and surface establishing two opposing free ends and thereby providing a degree of circumferential flexibility to said annular metal upper bearing; an annular cover plate disposed about the movable member and secured within the central bore; and a spring member compressed between the annular cover plate and an upper surface of the annular upper bearing; the annular cover plate and spring member are composed of metal, and wherein the spring member exerts an axial preload force on an annular metal upper bearing with toward the closed end of the central bore, and a head end portion simultaneously.

Gunn et al. teaches a ball joint (Fig. 6) including a metal bearing (32') having a split segment extending from the inner surface to the outer surface and surface establishing two opposing free ends (positioned at a single slot 40 cut in longitudinal direction) which capable of providing a degree of circumferential flexibility to said annular metal upper bearing. It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the upper bearing of Maughan with a split segment as taught by Gunn et al. in order to provide for compression of the bearing, enabling the bearing to compressively embrace the ball head within the housing (column 3, lines 48-51).

Graham et al. teach a ball joint (Fig. 2) that includes an annular cover plate (15) disposed about the movable member (12) and secured within the central bore; a spring member (14) compressed between the annular cover plate (15) and an upper surface of the annular upper bearing (13); the annular cover plate (15) and spring member (14) are composed of metal, and wherein the spring member (14) exerts an axial preload force on the annular metal upper bearing (13) toward the closed end of the central bore, and the head end portion (12a) simultaneously. It would have been obvious to one of ordinary skill in the art at the time of invention was made to

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provide the ball socket joint of Maughan with a metal cover plate and a metal spring as taught by Graham et al. in order to securely retain the bearing wall of the bearing ring against the ball end of the stud.



With respect to claim 5, Maughan in view of Gunn et al. and Graham et al., as modified above, would result in the annular metal upper bearing (26) being axially displaceable within the central bore.

With respect to claim 6, Maughan discloses (Fig. 1) that the metal lower bearing (24) is retained with the central bore by an interference fit.

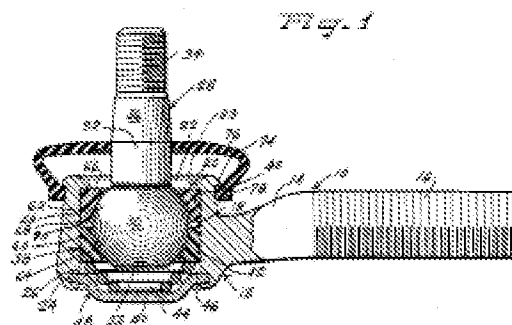
With respect to claim 10, Maughan fails to disclose that the housing includes a deformable annular region adjacent the open end of the central bore, the deformable annular region adapted for radially inward deformation to secure the annular cover plate within the central bore.

Graham et al. disclose (Fig. 1) the housing (11) includes a deformable annular region (11j) adjacent the open end of the central bore, the deformable annular region adapted for radially inward deformation to secure the annular cover plate (15) within the central bore. It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the ball joint of Maughan with a cover plate having a deformable annular region adjacent the open end of the central bore as taught by Graham et al. in order to secure the cover plate within the housing.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Maughan in view of Gunn et al. and Graham et al. as applied to claims 1, 3-6, and 10 above, and further in view of US Patent No. 3,128,110 Herbenar.

With respect to claim 7, Maughan in view of Gunn et al. and Graham et al. fail to disclose that the dust boot restrictor disposed about the shank portion.

Herbenar teaches a ball joint (Fig. 1) having a dust boot (74). It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the ball joint of Maughan with a dust boot as taught by Herbenar in order to order to seal the open upper end of the housing.



With respect to claim 8, Maughan in view of Gunn et al. and Graham et al. fail to disclose a flexible dust cover coupled between the housing and the shank portion of the movable member.

Herbenar teaches (Fig. 1) a flexible dust cover (74) coupled between the housing (12) and the shank portion (32) of the movable member (28). It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the joint of Maughan with a dust cover as taught by Herbenar in order to seal the open upper end of the housing.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Maughan, Gunn et al. and Graham et al. as applied to claims 1, 3-6, and 10 above, and further in view of US Patent No. 5,116,159 Kern, Jr. et al.

With respect to claim 11, Maughan in view of Gunn et al. and Graham et al. fail to disclose that the annular cover plate includes a chamfered inner surface to restrict articulation of the movable member.

Kern Jr. et al. teach (Fig. 4, column 3, lines 55-57) that the edge of the annular edge (50) of the bearing (14) is a chamfered edge (54) to facilitate extrusion of the plastic upon the forming of the joint during preload. It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the inner surface of the annular cover plate of Maughan with a chamfered edge as taught by Kern, Jr. et al. in order facilitating extrusion of the plastic upon the forming of the joint during preload and to provide a greater extrusion capacity for any given set of dimensional tolerances.

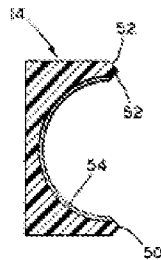


FIG. 4

Response to Arguments

Applicant's arguments with respect to claims 1, 3-8, 10, and 11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action, e.g. claim 1, lines 18-19, the limitation of the split segment “establishing two opposing free ends and thereby providing a degree of circumferential flexibility to said annular metal upper bearing”, was not claimed in original claimed invention. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nahid Amiri whose telephone number is (571) 272-8113. The examiner can normally be reached on Monday through Thursday from 8:00-6:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nahid Amiri
Examiner
Art Unit 3679
December 29, 2009

/
/Michael P. Ferguson/
Primary Examiner, Art Unit 3679